

ABSTRACT

The present invention is an array substrate for use in a liquid crystal display device, which includes a first double-layered metal structure and a second double-layered metal structure. The first double-layered metal structure includes a gate electrode, a gate line and a gate pad electrode on a substrate, wherein all of the gate electrode, the gate line and the gate pad electrode have a first barrier metal layer and a first copper layer. The second double-layered metal structure includes a data line, source and drain electrodes, a capacitor electrode, and a data pad electrode, wherein all of the data line, the source and drain electrodes, the capacitor electrode and the data pad electrode have a second barrier metal layer and a second copper layer.